

ART 34 AMEND

We claim:-

1. An aqueous dispersion of a water-soluble polymer of N-vinylformamide and/or of N-vinylacetamide, wherein the dispersion contains, based on 100 parts by weight of water,
- (A) from 5 to 80 parts by weight of a water-soluble polymer containing N-vinylformamide units and/or N-vinylacetamide units and having a particle size of from 50 nm to 2 μ m
- (B) from 1 to 50 parts by weight of at least one polymeric dispersant which is selected from the group consisting of carboxymethylcellulose, water-soluble starch, starch esters, starch xanthogenates, starch acetates, dextran, polyalkylene glycols, polyvinyl acetate, polyvinyl alcohol, polyvinylpyrrolidone, polyvinylpyridine, polyethyleneimine, polyvinylimidazole, polyvinylsuccinimide and polydiallyldimethylammonium chloride.
2. An aqueous dispersion of a water-soluble polymer as claimed in claim 1, wherein the dispersion contains, based on 100 parts by weight of water,
- (A) from 10 to 50 parts by weight of a water-soluble polymer containing N-vinylformamide units and/or N-vinylacetamide units and
- (B) from 5 to 40 parts by weight of at least one polymeric dispersant.
3. An aqueous dispersion of a water-soluble polymer as claimed in claim 1 or 2, wherein the dispersion contains as component (A) a homopolymer of N-vinylformamide.
4. An aqueous dispersion of a water-soluble polymer as claimed in claim 1 or 2, wherein the N-vinylformamide units and/or vinylacetamide units of the polymer (A) have been partially or completely converted into a polymer containing vinylamine units by hydrolysis with acids or bases.
5. A process for the preparation of aqueous dispersions of water-soluble polymers of N-vinylformamide and/or of N-vinylacetamide, wherein

16

(A) from 5 to 80 parts by weight of N-vinylformamide and/or N-vinylacetamide, if desired together with other monoethylenically unsaturated monomers, which form water-soluble polymers therewith, and

(B) from 1 to 50 parts by weight of at least one polymeric dispersant which is selected from the group comprising carboxymethylcellulose, water-soluble starch, starch esters, starch xanthogenates, starch acetates, dextran, polyalkylene glycols, polyvinyl acetate, polyvinyl alcohol, polyvinylpyrrolidone, polyvinylpyridine, polyethyleneimine, polyvinylimidazole, polyvinylsuccinimide and polydiallyldimethylammonium chloride,

in 100 parts by weight of water, are subjected to free radical polymerization at from 30 to 95°C in the presence of from 0.001 to 5.0% by weight, based on the monomers used, of polymerization initiators which form free radicals under the polymerization conditions.

A process as claimed in claim 5, wherein

(A) from 10 to 50 parts by weight of N-vinylformamide and/or vinylacetamide, if desired together with other monoethylenically unsaturated monomers which form water-soluble polymers therewith, and

(B) from 5 to 40 parts by weight of at least one polymeric dispersant.

in 100 parts by weight of water, are polymerized at from 40 to 70°C with from 0.5 to 2.0% by weight, based on the monomers used in the polymerization, of azocompounds which decompose into free radicals under the polymerization conditions.

7. A process as claimed in claim 5 or 6, wherein the polymeric dispersants (B) used are polyethylene glycol, polypropylene glycol, copolymers of ethylene glycol and propylene glycol, polyvinyl acetate, polyvinyl alcohol, polyvinylpyridine, polyvinylimidazole, polyvinylsuccinimide, polydiallyldimethylammonium chloride, polyethyleneimine and mixtures thereof.

8. A process as claimed in any of claims 5 to 7, wherein

AMENDED SHEET

17

- (A) N-vinylformamide, if desired together with other monoethylenically unsaturated monomers, and
- (B) polyethylene glycol, polyvinylpyrrolidone or mixtures thereof

are polymerized at from 40 to 55°C with water-soluble azo initiators.

10

15

20

25

30

35

40

45

0050/49505

Add
p37

ART 34-ART

Sub
2
concl